

Comparisons of Job Characteristics

Focus Occupation: **Electricians (47-2111)**

Associated Occupation: **Electro-Mechanical Technicians (17-3024)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electro-Mechanical Technicians (17-3024)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Computers and Electronics	8.4	16.1	10.1	<<	Extensive education and/or training may be required
Mathematics	9.2	16.0	14.5	<	Expanded education and/or training may be required
Mechanical	6.8	15.6	16.5	0	Current knowledge level may be sufficient
Engineering and Technology	5.7	14.2	11.8	<	Expanded education and/or training may be required
Production and Processing	6.0	10.8	5.8	<<	Extensive education and/or training may be required
Design	5.2	7.8	13.4	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electro-Mechanical Technicians (17-3024)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Operation Monitoring	6.6	13.9	10.5	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	12.9	11.0	<	A higher skill level may be required
Troubleshooting	4.5	12.8	12.3	0	Current skill level may be sufficient
Repairing	3.4	12.3	11.6	0	Current skill level may be sufficient
Equipment Maintenance	3.5	10.8	10.3	0	Current skill level may be sufficient
Operation and Control	5.4	10.5	8.8	<	A higher skill level may be required

Installation	1.7	10.2	9.4	0	Current skill level may be sufficient
Equipment Selection	3.3	9.2	8.4	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 81			
Focus Occupation: Electricians (47-2111)					
Associated Occupation: Electro-Mechanical Technicians (17-3024)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Near Vision	11.1	13.5	12.3	0	Current ability level may be sufficient
Finger Dexterity	7.6	12.5	11.8	0	Current ability level may be sufficient
Control Precision	6.6	12.1	9.5	<	Some improvement in abilities may be required
Arm-Hand Steadiness	6.8	12.0	11.0	0	Current ability level may be sufficient
Manual Dexterity	6.5	11.6	11.6	0	Current ability level may be sufficient
Far Vision	7.8	11.5	10.6	0	Current ability level may be sufficient
Selective Attention	8.7	11.4	9.4	<	Some improvement in abilities may be required
Perceptual Speed	7.4	11.2	10.3	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	10.6	12.8	>	Current ability level is likely sufficient
Auditory Attention	5.9	10.3	7.9	<<	Extensive improvement in abilities may be required
Reaction Time	4.8	10.3	9.3	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	9.8	7.9	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 76
Focus Occupation: Electricians (47-2111) Associated Occupation: Electro-Mechanical Technicians (17-3024)		
Work Activities	Exclusivity of Activity	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install/connect electrical equipment to power circuit	57	
Read blueprints	10	
Read technical drawings	7	
Repair or replace electrical wiring, circuits, fixtures, or equipment	49	
Solder electrical or electronic connections or components	55	
Understand service or repair manuals	40	

Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use oscilloscopes in electronics repair	77

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 80

Focus Occupation: Electricians (47-2111)
Associated Occupation: Electro-Mechanical Technicians (17-3024)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Electrical measuring and testing equipment	7
Finance accounting and enterprise resource planning ERP software	2
Forming tools	2
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Light and wave generating and measuring equipment	4
Machine tools	7
Measuring and layout tools	3
Power tools	2
Pressure measuring and control instruments	10
Prying and bending tools	10
Soldering and brazing and welding machinery and supplies	6
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.